

WHAT IS CLAIMED IS:

1. An apparatus for brazing a heat exchanger that includes a block of tubes and fins, which comprises:

a brazing frame which accommodates the block within itself and which comprises two brazing bars arranged parallel to each other and a plurality of tie rods which connect the brazing bars together.

2. An apparatus as claimed in claim 1, wherein the brazing bars are at a fixed distance b from each other which corresponds to a width of the block in a compressed condition suitable for brazing.

3. An apparatus as claimed in claim 2, wherein the brazing bars have a height h and a length l which correspond to the height H and the length L of the block.

4. An apparatus as claimed in claim 1, wherein the brazing bars have an open profile which opens toward one longitudinal side and which comprises a plurality of openings therein.

5. An apparatus as claimed in claim 4, wherein the tie rods are fixed to the lower longitudinal sides of the brazing bars, and wherein the openings are open toward the upper longitudinal sides of the brazing bars.

6. An apparatus as claimed in claim 5, wherein the openings comprises slots arranged at right angles to the longitudinal side.

7. An apparatus as claimed in claim 1, further comprising transverse spars inter-connecting the tie rods.

8. An apparatus as claimed in claim 4, wherein said openings comprise notches.

9. An apparatus as claimed in claim 1, wherein the brazing frame has a fixed dimension transverse to said block.

10. An apparatus as claimed in claim 4, wherein the brazing bars comprise angled profiles having a continuous leg and a leg comprising a plurality of notches.

11. An apparatus as claimed in claim 4, further comprising a compression device for compressing the tubes and fins together in a direction transverse to the block, said compression device comprising opposing compression members that include a plurality of fingers spaced to cooperate with said openings.

12. An apparatus as claimed in claim 1, wherein said tubes are flat tubes and said fins are corrugated fins.

13. An apparatus as claimed in claim 1, wherein the heat exchanger comprises a condenser.

14. A method for brazing a heat exchanger that includes a block of tubes and fins, comprising:

mechanically joining the tubes and fins to form a block;

transversely compressing the block with respect to the longitudinal direction of the tubes to a width dimension B;

inserting the block into a brazing frame which has a fixed lateral dimension sufficient to maintain the block in a compressed state suitable for brazing; and

brazing the compressed block, while held in the brazing frame, in a brazing furnace.

15. A method as claimed in claim 14, wherein the brazing frame comprises laterally opposed brazing bars, wherein said bars include a plurality of openings therein, and wherein the inserting comprises inserting the compressed block by means of a compression tool having opposed fingers that cooperate with at least some of said openings during insertion.

16. A method as claimed in claim 15, wherein said fixed lateral dimension of the brazing frame is less than dimension B, and wherein the inserting comprises placing the compressed block into the brazing frame while holding the block at dimension B, and thereafter releasing compression on the block, whereby the block expands to equal said fixed lateral dimension of the brazing frame.

17. A method as claimed in claim 16, wherein said releasing comprises laterally withdrawing said opposed fingers through said openings in the brazing bars.

18. A heat exchanger produced in accordance with a method as claimed in claim 14.